

Abstract of the Disclosure:

In addition to the starting gases containing the elements of the solid-state layer to be deposited, at least one auxiliary substance is introduced into the reaction space of a reactor chamber. This auxiliary substance contains molecules which have a dipole moment and which have the property of briefly attaching themselves during the deposition process to the substrate surface with a dipole moment perpendicular to the substrate surface. In this way, the crystal structure of the solid-state layer to be grown on is dictated.

MPW/kf